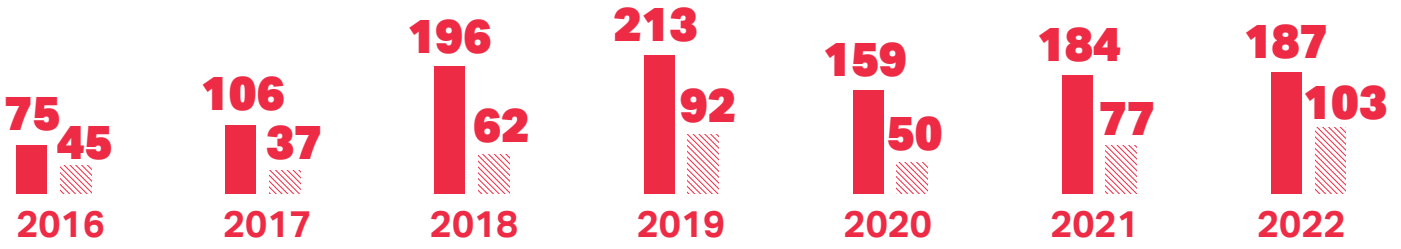
I. Internet shutdowns in 2022: a global overview

Overview of 2022 data

Documented internet shutdowns by year *



* These numbers reflect the latest data available as of publication of this report and include updates to previously published totals for past years.

Number of countries where shutdowns occurred

India: 84
Ukraine: 22**
Iran: 18
Myanmar: 7
Bangladesh: 6
Jordan: 4
Libya: 4
Sudan: 4
Turkmenistan: 4

Afghanistan: 2 **Burkina Faso:** 2 **Cuba:** 2
Kazakhstan: 2 **Russia:** 2 **Sierra Leone:** 2
Tajikistan: 2 **Uzbekistan:** 2

Algeria: 1 **Armenia:** 1 **Azerbaijan:** 1 **Brazil:** 1
China: 1 **Ethiopia:** 1 **Iraq:** 1 **Nigeria:** 1
Oman: 1 **Pakistan:** 1 **Somaliland:** 1
Sri Lanka: 1 **Syria:** 1 **Tunisia:** 1 **Turkey:** 1
Uganda: 1 **Yemen:** 1** **Zimbabwe:** 1

** Shutdowns were imposed by external forces during armed conflict in Ukraine and Yemen.

Shutdown triggers in 2022

Protests — **62** shutdowns in **16** countries during protests

Active conflicts — **33** shutdowns during active conflicts

Exams — **8** shutdowns in **6** countries "to prevent exam cheating"

Elections — **5** shutdowns in **5** countries tied to elections

Shutdown trends in 2022

1. Grave human rights abuses*** and violence shrouded by shutdowns on the rise

→ **48** shutdowns in **14** countries coinciding with documented human rights abuses:

Bangladesh, Ethiopia, Iran, Jordan, Kazakhstan, Myanmar, Russia, Sierra Leone, Somaliland, Sudan, Tajikistan, Uzbekistan, and active conflict zones in Ukraine and Yemen

*** Human rights abuses include cases where there is evidence of violence, including murder, torture, rape, or apparent war crimes by governments, militaries, and police or security forces.

2. Countries entrenched in repeat offenses and prolonged shutdowns

→ **787+ days**

By the end of 2022, people in Tigray, Ethiopia had endured **2+** years of full communications blackout, and many remain disconnected

→ **33** of the **35** countries that imposed shutdowns are repeat offenders since 2016

→ **500+ days**

People in many regions across Myanmar had been in the dark for 500+ days by March 2023

→ **16** shutdowns worldwide lasted from 2021 to 2022 and **16** are now ongoing from 2022 to 2023, compared to **8** between 2020 and 2021

3. Targeted shutdowns and their immeasurable harms

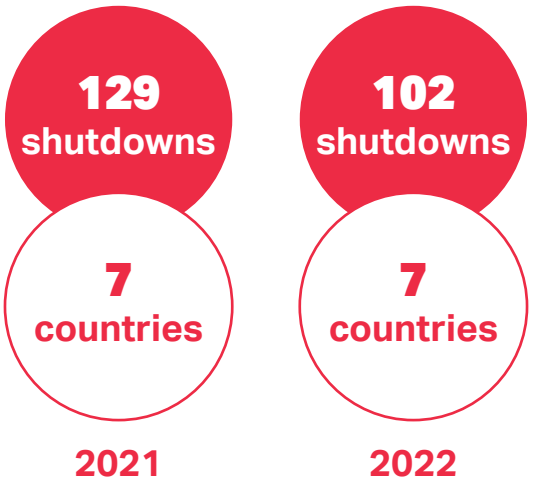
→ **23** countries had **28** service-based shutdowns in 2022:

Afghanistan, Algeria, Armenia, Azerbaijan, Bangladesh, Brazil, Burkina Faso, China, India, Iran, Jordan, Kazakhstan, Nigeria, Oman, Russia, Sri Lanka, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine (imposed by Russian military), Uzbekistan, and Zimbabwe

→ Layered tactics of shutdown + censorship + surveillance:

Iran: Nationwide platform blocks + curfew-style mobile blocks in regional hotspots
Myanmar: Disrupting mobile networks, VPN access, encrypted messaging + forcing people onto heavily surveilled, military-operated ISP networks
Ukraine: Cyberattacks impacting Ukrainian ISPs + attempts to force occupied territories onto highly censored and surveilled Russian networks

Asia Pacific Regional overview in 2022



Myanmar: 7
Longest ongoing shutdown exceeded 540 days as of March 2023

India: 84
Most shutdowns recorded in the world for five consecutive years

Bangladesh: 6 **Afghanistan: 2** **China: 1**
Pakistan: 1 **Sri Lanka: 1**

Mobile vs. broadband shutdowns in the region

1.2 billion mobile internet users in the region
(source: Global System for Mobile Communications Association)

Despite the apparent reduction in total shutdowns in the region from 2021 to 2022, these shifts are largely reflective of increasingly entrenched shutdowns, as well as erratic and hyperlocal disruptions, severe obstacles to documenting recurring disruptions in communities under attack, and the introduction of alternative censorship strategies layered on top of shutdowns. The Asia Pacific region remains a global leader in internet shutdowns, reflected in the case studies of India and Myanmar, where people continue to experience staggering levels of targeted disruptions. Regardless of the total number of shutdowns documented, people in India's Jammu and Kashmir and Myanmar's Sagaing and Magway regions and Chin state lived through much of 2022 with near-continuous disruptions and poor quality of service in the rare intervening moments of connectivity.

// Myanmar

In Myanmar, the military crackdown on those resisting the regime after the coup d'etat two years ago[1] has included the use of internet shutdowns to facilitate and shroud serious human rights violations and sever communications between individuals and communities. At present, we can verify at least **seven** shutdowns in 2022; however, this number underplays the full range and nature of connection disruptions across the country. In reality, through 2022, the military consolidated control[2] of all telecommunications providers in Myanmar, expanded surveillance infrastructure[3] across the country, and shut down mobile and internet connections both consecutively and erratically across regions. This has posed a severe challenge for local partners as they work to verify the frequency and duration of shutdowns. Nevertheless,

1 Access Now (2022). *Two years of dangerous occupation: international community must protect rights in Myanmar.* Retrieved February 18, 2023, from https://www.accessnow.org/myanmar-coup-two-years/.

2 Access Now (2022). *Ooredoo's plans to leave Myanmar hands military full control of nation's telco sector — it must mitigate the human rights risks.* Retrieved February 18, 2023, from https://www.accessnow.org/ooredoo-myanmar-sale/.

3 Access Now (2022). *Track and target: FAQ on Myanmar CCTV cameras and facial recognition.* Retrieved February 18, 2023, from https://www.accessnow.org/myanmar-cctv-cameras/.

our coalition continues to document additional discrete instances of shutdowns, particularly those targeted at specific communities, and we will continue to update Access Now's STOP database[4] as new information becomes available.

Regardless of the final total, emerging information coming from trusted #KeepItOn coalition partners and people on the ground highlight the breadth and severity of shutdowns in the country. According to our partners, as of March 2023, the longest ongoing shutdown in Myanmar had been in place in Hpakant township in Kachin state for more than **18** months, and approximately **50** townships had been cut off for more than **one** year. Of these, more than **20** townships faced shutdowns for the entirety of 2022 and for more than **500** days, and at least **25** townships faced shutdowns for **10** months of 2022. Partners also reported shutdowns across the Sagaing, Magway, and Mandalay regions, and Shan, Chin, Kachin, and Kayah states, with the most affected areas being Sagaing, Magway, and Chin, where resistance to the military is strongest. Meanwhile, across the country, all **330** townships have been subjected to shutdowns at least once in 2022, with many experiencing daily mobile and broadband shutdowns on top of other communications blackouts. Since there is ongoing armed conflict, some of these shutdowns were likely the result of damage to network infrastructure. People in remote areas have also been suffering from temporary outages due to lack of electricity or petrol, particularly in Kayah state.

These shutdowns are strategic. The Myanmar junta continues to actively and regularly impose disruptions prior to and during military attacks on villages, to shroud its "scorched earth" strategy[5] of killings, torture, ill-treatment, and arrests,[6] as well as widespread arson of property.[7] Even when there are no military attacks, people in these villages have suffered from ongoing connectivity challenges, as significant price hikes for internet access[8] and expanded regulations for IMEI and SIM card registration[9] supplement shutdowns to make connectivity an exception rather than the norm. In regions where mobile connectivity continues, individuals are forced to use networks run by military-owned telecommunications providers, such as

Shutdown impact story: Myanmar

"We have been facing significant challenges trying to confirm where there is connectivity and where it has been cut off in Myanmar. After the coup, with every passing month, more activists are forced to leave Myanmar for security reasons, while still trying to connect with and support people within. We know what the 'right' or 'secure' ways to communicate are, but we simply cannot use them. VPNs do not work in some regions, nor do calls on encrypted apps like Signal. In some places, we can only communicate over military-owned telecom operators' networks, even when we know it is very risky. Many times, we have to communicate with intermediaries for people's safety, so we struggle to get direct information. Everything we do is being monitored — the military is conducting house raids, freezing our bank accounts and mobile banking apps, monitoring financial transactions, tracking SIM cards and phone IMEIs, stopping the issuance of passports to control people flying in and out… All while burning villages, looting homes, and our family and friends have to keep moving to avoid capture.Their aim is to kill the resistance, and they will stop at nothing."

———

A human rights defender

4 Access Now (2022). *The Shutdown Tracker Optimization Project (STOP) database*. Retrieved February 28, 2023, from https://www.accessnow.org/keepiton-2016-2022-data/.

5 Access Now (2022). *Open call to all international actors: do more to stop internet shutdowns shrouding torchings and killings in Myanmar*. Retrieved February 18, 2023, from https://www.accessnow.org/statement-against-myanmar-shutdowns/.

6 Athan - Freedom of Expression Activist Organization (2022). *Internet Access Amid Darkness and Lives Amid Threats*. Retrieved February 18, 2023, from https://progressivevoicemyanmar.org/2022/05/30/internet-access-amid-darkness-and-lives-amid-threats/.

7 The Irrawaddy (2022). *Myanmar Junta Torches 10 Villages in Two Days in Sagaing*. Retrieved February 18, 2023, from https://www.irrawaddy.com/news/burma/myanmar-junta-torches-10-villages-in-two-days-in-sagaing.html/.

8 Access Now (2022). *Resist Myanmar's digital coup: stop the military consolidating digital control*. Retrieved February 18, 2023, from https://www.accessnow.org/myanmars-digital-coup-statement/.

9 Access Now (2022). *Myanmar IMEI FAQ: how the junta could disconnect the resistance*. Retrieved February 18, 2023, from https://www.accessnow.org/myanmar-imei/.

Myanma Posts and Telecommunications (MPT) and Mytel, as those networks are the only remaining means of communication.[10] While some telcos have recorded occasional temporary restoration of connectivity or 2G access in affected areas, there have also been increasing reports of highly targeted restrictions on mobile and phone lines.

Shutdowns documented in Myanmar, August 2021 to March 2023 (verified as of February 2023)

540+ days
Hpakant township in Kachin

500+ days
20+ townships across Sagaing, Magway, Mandalay, Chin, and Kachin

365+ days
Approx. 50 townships across Sagaing, Magway, Mandalay, Chin, Kachin, and Kayah

// India

India, which was responsible for **84** shutdowns in 2022, remains the country with the highest number of recorded shutdowns in the world — for the fifth consecutive year. Authorities disrupted internet access at least **49** times in Jammu and Kashmir due to political instability and violence, including a string of **16** back-to-back orders for three-day-long curfew-style shutdowns in January and February 2022. Though brief, rare spells of uninterrupted internet access in the region delivered clear benefits for women and small-business owners,[11] further proof that internet access is vital for realizing economic security and closing the gender digital divide.

In 2021, around **80%** of all shutdowns in India were in Jammu and Kashmir, compared to **58%** in 2022. Authorities in regions across the country are increasingly resorting to this repressive measure, inflicting shutdowns on more people in more places. Setting aside Jammu and Kashmir, authorities in West Bengal (**7**) and Rajasthan (**12**) imposed more shutdowns than authorities in other regions in India, responding to protests, communal violence, and exams with disruptions that impacted the daily lives of millions of people for hundreds of hours in 2022.

Although we counted fewer than 100 shutdowns in India for the first time since 2017, we're not convinced Indian authorities have embarked on the path toward positive, sustained change with regard to digital rights. Legal challenges against shutdowns,[12] fewer mass protests in the aftermath of the COVID-19 pandemic, and the sustained and increasing crackdown on dissent may have increased administrative friction or reduced the incentives for authorities to impose shutdowns. At the same time, the government's persistent failure to publicly release shutdown orders[13] in violation of the Supreme Court's judgment,[14] and the technical challenges in monitoring, tracking, and recording shutdowns — in particular in communities where shutdowns are an emerging issue — likely mean we have not yet recorded all disruptions. In addition, the proposed Draft Indian Telecommunication Bill,[15] which would empower central and state governments with unrestricted powers to impose shutdowns when "necessary and expedient," signals the government's intention to continue down this troublesome path,

10 Thomson Reuters Foundation News (2022). *A year after Myanmar coup, growing surveillance threatens lives*. Retrieved February 18, 2023, from https://news.trust.org/item/20220131095532-a8q70/.

11 Deccan Herald (2022). *Women, startups thrive after Kashmir eases internet shutdowns*. Retrieved February 18, 2023, from https://www.deccanherald.com/national/north-and-central/women-startups-thrive-after-kashmir-eases-internet-shutdowns-1173055.html/.

12 *See*, e.g., The Register (2022). *India's Supreme Court demands government detail internet shutdown rules*. Retrieved February 18, 2023, from https://www.theregister.com/2022/09/13/india_internet_shutdowns_challenged/; Internet Freedom Foundation (2022). *#KeepItOn: Calcutta HC disposes of Ashlesh Biradar's writ petition against internet shutdowns by directing that state authorities are bound to follow law*. Retrieved February 18, 2023, from https://internetfreedom.in/keepiton-calcutta-hc-disposes-of-writ-petition-against-internet-shutdowns-directing-state-authorities-bound-to-follow-law/.

13 Internet Freedom Foundation (2020). *Amendment to the Telecom Suspension Rules offers little protection against arbitrary and prolonged internet shutdowns #KeepUsOnline*. Retrieved February 22, 2023, from https://internetfreedom.in/telecom-suspension-rules-amendment-15-day-time-limit/.

14 Columbia University, Global Freedom of Expression (n.d.). *Bhasin v. Union of India*. Retrieved February 22, 2023, from https://globalfreedomofexpression.columbia.edu/cases/bhasin-v-union-of-india/.

15 Access Now (2022). *India's Draft Teleco Bill empowers governments to impose internet shutdowns*. Retrieved February 18, 2023, from https://www.accessnow.org/india-telecommunications-bill-shutdowns/.

Shutdown impact story: Meghalaya, India

"I saved myself enough money to buy a smartphone and then wanted to use it to my advantage. Therefore I got engaged with [a food ordering app] and started delivering. The money I earn is on a daily basis. It depends on the number of deliveries I make in a day, but with mobile internet not working, I have nothing to do and have not made a penny for the last five days."

A food delivery worker

"Our primary mode of transaction is Google Pay. Customers are not able to pay us neither are we able to pay for the stuff we buy for the shop. It is a problem."

A small business owner

These two stories were reported by Abha Anindita in the article *Pain of living without mobile internet* on The Meghalayan. For the full story, visit https://themeghalayan.com/pain-of-living-without-mobile-internet/.

violating fundamental rights of expression and assembly and providing opportunities to cover up human rights abuses. In addition to shutdowns, Indian authorities have honed their playbook by increasing censorship, blocking websites, and issuing takedown orders to social media platforms.

India's expanding censorship toolkit

From 2015 to 2022, Indian authorities blocked at least 55,607 websites, URLs, applications, social media posts, and accounts.[16] These censorship acts have been steadily on the rise, with the government blocking 2.4 times, or 142%, more social media posts in 2022 than 2018.[17]

	Shutdowns	Takedown orders (social media posts and accounts)[18]
2022	84 (21% ↓)	6775 (11% ↑)
2021	107	6096

Shutdowns during protest and unrest

Elsewhere in the Asia Pacific region, Pakistan[19] and Bangladesh[20] ordered shutdowns during protests, and China,[21] Afghanistan,[22] and Sri Lanka[23] blocked social media services. On April 3, 2022, in an attempt to quell widespread protests against the president's declaration of a state of emergency, the Sri Lankan Telecommunications Regulatory Commission banned all social media services across Sri Lanka.[24] The shutdown accompanied a recent spike in censorship, information regulation, and isolation from the outside world — all markers of a government's descent into digital authoritarianism.

16 Software Freedom Law Center (2023). *Finding 404: A Report on Website Blocking in India*. Retrieved February 18, 2023, from https://sflc.in/finding-404-report-website-blocking-india/.

17 Government of India Ministry of Electronics and Information Technology (2023). *Rajya Sabha Unstarred Question No. 1047: Censorship on Social Media*. Retrieved February 18, 2023, from https://pqars.nic.in/annex/259/AU1047.pdf/.

18 *Ibid.*

19 Cloudflare Radar (@CloudflareRadar). Twitter Post. 6:15 pm. May 25, 2022. Retrieved February 18, 2023, from https://twitter.com/CloudflareRadar/status/1529481339472429062/.

20 Access Now (2022). *Internet throttling in Bangladesh: government, telcos must #KeepItOn*. Retrieved February 18, 2023, from https://www.accessnow.org/keepiton-internet-throttling-bangladesh/.

21 Tech Radar (2021). *China blocks Signal - here's what you need to know*. Retrieved February 18, 2023, from https://www.techradar.com/news/china-blocks-signal-heres-what-you-need-to-know. We are also continuing to investigate reports indicating the use of signal jammers during protests against COVID-19 lockdowns in Chengdu and other cities across China. *See*, e.g., Vice (2022). *Why China's COVID Protests Aren't Like Anything Before Them*. Retrieved February 18, 2023, from https://www.vice.com/en/article/qjkaz5/china-covid-protests-xi-jinping.

22 WIRED (2023). *The Taliban Can't Stop TikTok*. Retrieved February 18, 2023, from https://www.wired.com/story/the-taliban-cant-stop-tiktok/.

23 Access Now (2022). *Authorities, telcos in Sri Lanka must ensure internet access throughout crisis*. Retrieved February 18, 2023, from https://www.accessnow.org/sri-lanka-internet-access-crisis/.

24 Access Now (2022). *The government must commit to ensuring access to an open internet and free social media in crisis-hit Sri Lanka*. Retrieved February 18, 2023, from https://www.accessnow.org/sri-lanka-ensure-access-to-open-internet/.

The #KeepItOn campaign unites and organizes global organizations and efforts to end internet shutdowns. The campaign was launched by a coalition of about 70 organizations in 2016 at RightsCon in Silicon Valley. Membership of the coalition has since increased rapidly to more than 300 members from 105 countries around the world ranging from civil society, rights, and advocacy groups to research centers, detection networks, foundations, and media organizations.

This report is a publication of Access Now for the #KeepItOn coalition and was written by Zach Rosson, Felicia Anthonio, and Carolyn Tackett in collaboration with the Access Now team.

The authors would like to especially thank Sage Cheng, Donna Wentworth, Marwa Fatafta, Raman Jit Singh Chima, Wai Phyo Myint, Golda Benjamin, Anastasiya Zhyrmont, Natalia Krapiva, Ángela Alarcón, Bridget Andere, Ji Yeon Kim, Jaimee Kokonya, Namrata Maheshwari, Peter Micek, Kassem Mnejja, Laura O'Brien, Gaspar Pisanu, Agneris Sampieri, Dhevy Sivaprakasam, Chetna Kumar, Alexia Skok, and Megan Kathure, for their contributions. They would like to thank Data4Change, Software Freedom Law Centre India (SFLC.in), Yodet, Digitally Right, Miaan Group, Cloudflare, Internet Outage Detection and Analysis (IODA), Myanmar Internet Project, Athan, Kentik, Open Observatory of Network Interference (OONI), and other members of the #KeepItOn coalition for providing valuable information and insights about case studies, reviewing data and sources, and contributing to the report. Any errors, misrepresentations, or inaccuracies are ours alone, and we welcome your feedback.

Design and data visualization by Sage Cheng.

A note on our data

This #KeepItOn report looks at incidents of internet shutdowns documented by Access Now and the #KeepItOn coalition in 2022. While we try to build a comprehensive database, our data relies on technical measurement as well as contextual information, such as news reports or personal accounts. The constraints of our methodology mean that there may be cases of internet shutdowns that have gone unreported, and numbers are likely to change if and when new information becomes available after publication. For further reading, please visit https://accessnow.org/keepiton-data-methodology.

February 2023

#KeepItOn